

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of communicating a data signal on an electric power system, comprising:

~~communicating~~ injecting the data signal on a medium voltage line of the electric power system;

bypassing the data signal around a distribution transformer from the medium voltage line onto a low voltage line and transmitting the data signal to a customer premise; and

modifying the transmission characteristics of the electric power system to reduce the data signal transmitted to ~~an electrical component located on the electric power system~~ the distribution transformer; and

~~transmitting the data signal to a customer premise.~~

2. (Original) The method of claim 1, wherein modifying comprises increasing an impedance imposed by the electrical component on the data signal.

3. (Original) The method of claim 2, further comprising increasing inductive properties of the electrical component.

4. (Original) The method of claim 3, wherein the inductive properties are increased by an inductor.

5. (Original) The method of claim 3, further comprising adding one or more ferrite cores to the electric power system.

6. (Original) The method of claim 5, further comprising locating the ferrite cores around a connection point on the electrical component.

7. (Original) The method of claim 6, wherein the connection point is on a primary side of a transformer.

8. (Original) The method of claim 6, wherein the connection point is on a secondary side of a transformer.

9. (Original) The method of claim 5, further comprising locating the ferrite cores around at least one conductor attached to the electrical component.

10. (Original) The method of claim 1, further comprising increasing an impedance from the electrical component to a point at which the data signal is provided to the network.

11. (Original) The method of claim 1, further comprising reducing electromagnetic noise created by the electrical component.

12. (Original) The method of claim 1, wherein the characteristics of the electric power system are modified without substantially reducing a voltage signal.

13. (Original) The method of claim 12, wherein the voltage signal has a frequency substantially in the range of 0 to 100 Hertz.

14. (Original) The method of claim 1, wherein the data signal has a higher frequency than a voltage signal.

15. (Canceled).

16. (Canceled).

17. (Original) The method of claim 1, wherein the data signal has a frequency substantially in the range of 1 to 100 Mega Hertz.

18. (Currently Amended) A system for communicating a data signal on an electric power system, comprising:

~~an electric power system~~ a medium voltage power line;

a low voltage power line;

a distribution transformer in communication with~~connected to~~ the electric power system medium voltage power line and the low voltage power line;

a data source in communication with the electric power system medium voltage power line, wherein the data source communicates a data signal to the electric power system; ~~and~~

a power line bridge that communicates the data signal from the medium voltage power line to the low voltage power line; and

a blocking device in communication with the electric power system low voltage power line, wherein the blocking device prevents a portion of the data signal from being transmitted to the transformer.

19. (Original) The system of claim 18, further comprising a data termination device for communicating with the data signal, wherein the blocking device substantially permits the data signal to be communicated with the data termination device.

20. (Original) The system of claim 19, wherein the data termination device transmits and receives the data signal.

21. (Original) The system of claim 18, wherein the data termination device is a computing device located in a customer premise.

22. (Original) The system of claim 18, wherein the data termination device includes at least one of the following: a facsimile machine, a telephone, a television, appliance, and a computer.

23. (Original) The system of claim 18, wherein the data source transmits and receives the data signal.

24. (Original) The system of claim 18, wherein the blocking device transmits and receives the data signal.

25. (Original) The system of claim 18, further comprising a data network in communication with the data source.

26. (Original) The system of claim 25, wherein the data network is the Internet.

27. (Original) The system of claim 18, wherein the data source includes at least one of the following: a power line bridge, a router, a medium voltage coupler, and a computing device.

28. (Original) The system of claim 18, wherein at least one data communication line carries the data signal data between the data source and the blocking device.

29. (Original) The system of claim 18, wherein at least one service line carries the data signal and the voltage signal between the customer premise and the transformer.

30. (Original) The system of claim 18, wherein the blocking device is an inductor.

31. (Currently Amended) The system of claim 18, A device for communicating a data signal on an electric power system, comprising:

an input port for receiving the voltage signal;

an output port for receiving the data signal; and

a blocking device in communication with the input port and the output port,
wherein the blocking device increases the impedance presented to the data signal without substantially influencing the voltage signal.

32. (Original) The device of claim 31, wherein the blocking device is an inductive element.

33. (Original) The device of claim 31, wherein the blocking device creates an impedance for the data signal.

34. (Canceled).

35. (Canceled).

36. (Canceled).

37. (Canceled).

38. (Canceled).

39. (Currently Amended) The system of claim ~~36~~31, wherein the blocking device is connected to an attachment lug on the ~~electrical-distribution~~transformer.

40. (Currently Amended) The system of claim 39, wherein the attachment lug is connected to a ~~secondary~~primary winding on the ~~electrical-distribution~~transformer.

41. (Currently Amended) The system of claim 39, wherein the attachment lug is connected to a secondary winding on the ~~electrical-distribution~~transformer.

42. (Currently Amended) The system of claim 36, wherein the blocking device is located within the ~~electrical-distribution~~transformer.